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**Hance et al.**

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(54) **ROBOT INVENTORY UPDATES FOR ORDER ROUTING**

(71) Applicant: **Google LLC**, Mountain View, CA (US)

(72) Inventors: **Chris Hance**, San Jose, CA (US);  
**Thibault Vrevin**, San Francisco, CA (US)

(73) Assignee: **Google LLC**, Mountain View, CA (US)

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*Primary Examiner* — Michael Collins

(74) *Attorney, Agent, or Firm* — McDonnell Boehnen Hulbert & Berghoff LLP

(57) **ABSTRACT**

A method includes maintaining an inventory database for each warehouse of a plurality of warehouses, where a plurality of robots are deployed at each warehouse, where the inventory database for each warehouse is updated based on messages sent by the plurality of robots at the warehouse during performance of tasks by the plurality of robots at the warehouse. The method further includes receiving an order and determining, for each warehouse, a projected availability time for an item that satisfies the order to be available for pickup at the warehouse based on the inventory database for the warehouse. The method additionally includes selecting a warehouse from the plurality of warehouses based on the projected availability time determined for each warehouse. The method further includes causing at least one robot at the selected warehouse to prepare for pickup the item that satisfies the order at the selected warehouse.

**20 Claims, 24 Drawing Sheets**

